We claim:-

1. A process for producing hollow plastic articles, encompassing the following steps:
   a) producing a tubular plastic parison by means of extrusion or coextrusion;
   b) cutting open the plastic parison to produce two planar-surface parts;
   c) molding the planar-surface parts in two mold halves to give half shells, where a removable intermediate frame separates the mold halves from one another at least along the peripheral edges, so that the semifinished products/half shells are not in contact with one another;
   d) opening the mold halves and removing the intermediate frame;
   e) closing the mold halves, with the result that the half shells come into contact with one another along a peripheral rim; and
   f) bonding the half shells to give a hollow article.

2. A process as claimed in claim 1, wherein, after removal of the intermediate frame, incorporated parts can be attached to the inside of at least one of the molded half shells.

3. A process as claimed in claim 2, wherein the incorporated parts are ventilation lines for pressure equilibration within the tank, fuel lines for equilibration of liquids within the tank, valves, anti-surge cups, or pump-related and/or tank sensor modules, for example.

4. A process as claimed in any of the preceding claims, wherein the planar-surface parts are molded in the mold halves to give half shells by means of thermoforming and/or blow molding.

5. A process as claimed in any of the preceding claims, wherein the bonding of the half shells takes place by adhesive bonding and/or welding.

6. A process as claimed in claim 5, wherein the heat from thermoforming is used to weld the half shells.

7. A process as claimed in any of the preceding claims, wherein, after bonding of the half shells, further molding of the hollow article takes place via thermoforming and/or blow molding.

8. A process as claimed in any of the preceding claims, wherein the intermediate frame used comprises a plate insert which substantially provides complete filling of the area between the two mold halves.

9. A process as claimed in any of the preceding claims, wherein the intermediate frame has equipment for cooling or heating.

10. A process as claimed in any of the preceding claims, wherein the intermediate frame has equipment for controlled heating of the edges of the molded half shells.

11. A process as claimed in any of the preceding claims, wherein the intermediate frame has equipment for heating the pinch-off edge of at least one mold half, preferably of both.

12. A process as claimed in any of the preceding claims, wherein the intermediate frame or the plate insert is of single-part or multipart design.

13. A process as claimed in any of the preceding claims, which proceeds without additional heating steps or cooling steps.

14. A process as claimed in any of the preceding claims, wherein, during cutting open of the plastic parison, use is made of driven units of roller type, preferably driven floating rollers, for consistent guiding over the cutting device.

15. A process as claimed in any of the preceding claims, wherein the cutting of the plastic parison takes place prior to separation from the die, i.e. before the extrusion process is complete, or immediately afterward.

16. A process as claimed in any of the preceding claims, wherein the plastic parison has at least one layer made from polymeric material, preferably selected from the group consisting of polyethylene, polypropylene, polyvinyl chloride, polyamide, polyketone, polyester, and mixtures of these.

17. A process as claimed in any of the preceding claims, wherein the plastic parison has a structure composed of two or more layers, preferably encompassing base layer, regrind layer, adhesion-promoter layer, and/or barrier layer.

18. A process as claimed in any of the preceding claims, wherein the plastic parison has a structure composed of two or more layers encompassing, from the outside to the inside:

- a layer made from HDPE with thickness from 5 to 30%,
- a regrind layer with thickness from 10 to 82%,

- an adhesion-promoter layer with thickness from 1 to 5%,
- a barrier layer with thickness from 1 to 10%,
- an adhesion-promoter layer with thickness from 1 to 5%,
- a layer made from HDPE with thickness from 10 to 40%,

based in each case on the total thickness of the container wall.

19. A process for producing hollow plastic articles, encompassing the following steps:

a) producing, by means of extrusion or coextrusion, a tubular plastic parison encompassing at least one layer made from polymeric materials preferably selected from the group consisting of polyethylene, polypropylene, polyvinyl chloride, polyamide, polyketone, polyester, and mixtures of these;

b) cutting open the plastic parison to give two planar-surface parts by means of a suitable cutting device, using driven floating rollers for consistent guiding of the parison over the cutting device;

c) molding the planar-surface parts in two mold halves to give half shells, where a removable intermediate frame separates the mold halves from one another, at least along the peripheral edges, so that the semifinished products/half shells are not in contact with one another;

d) opening the mold halves and removing the intermediate frame;

e) closing the mold halves, with the result that the half shells come into contact with one another along a peripheral rim; and

f) welding the half shells to give a hollow article.

20. A hollow plastic article which can be produced by the process as claimed in any of claims 1 to 19.

21. The use of a hollow plastic article obtainable by the process as claimed in any of claims 1 to 18 as a plastic fuel tank in motor vehicles, as a gasoline canister, a plastic tank for storage or transport of heating oil, diesel, or the like, or a transport container on a utility vehicle, for example for crop sprays, or a solvent container, plastic bottle, or the like.